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VAN DER ROHE**

**FEDERAL CENTER
CHICAGO**

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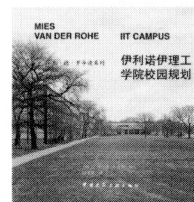
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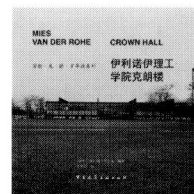
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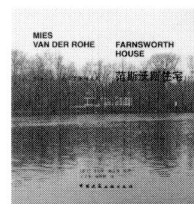
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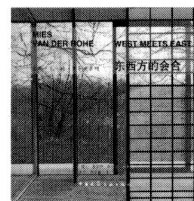
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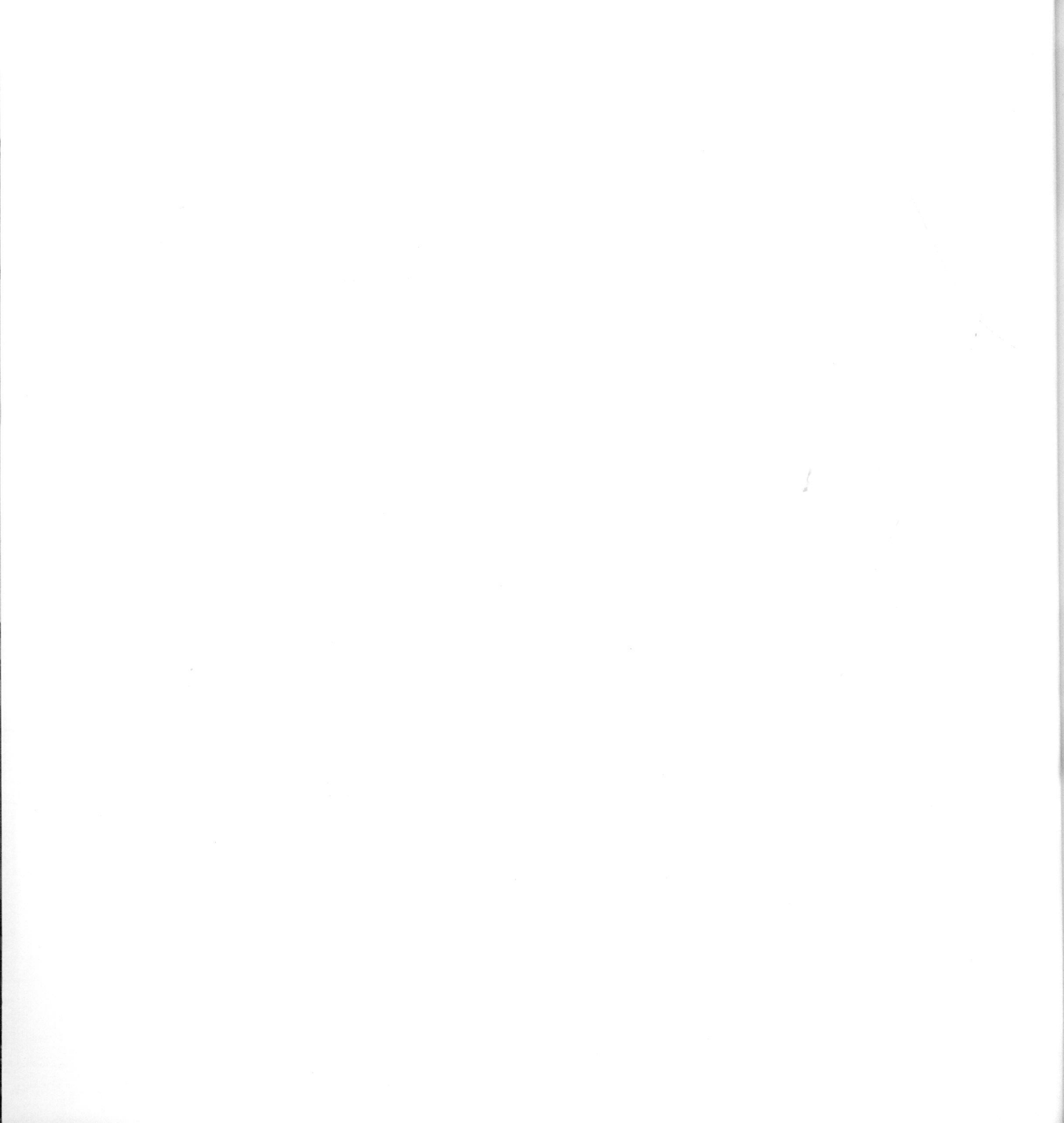
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Federal Center Chicago



MIES VAN DER ROHE FEDERAL CENTER CHICAGO

密斯·凡·德·罗导读系列
芝加哥联邦中心大厦

[瑞士] 维尔纳·布雷泽 编著
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中国建筑工业出版社

著作权合同登记图字：01-2005-2849 号

图书在版编目 (C I P) 数据

芝加哥联邦中心大厦 / (瑞士) 布雷泽编著; 许天鹏,
许迪译. —北京: 中国建筑工业出版社, 2006
(密斯·凡·德·罗导读系列)
ISBN 7-112-08014-2

I . 芝… II . ①布…②许…③许… III . 住宅—
建筑设计—美国—图集 IV . TU241-64

中国版本图书馆 CIP 数据核字 (2006) 第 005633 号

Copyright © 2004 Birkhäuser Verlag AG (Verlag für Architektur), P.O. Box 133, 4010 Basel,
Switzerland

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Mies van der Rohe, Federal Center Chicago/Werner Blaser

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责任编辑: 孙 炼

责任设计: 崔兰萍

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密斯·凡·德·罗导读系列

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中国建筑工业出版社出版、发行(北京西郊百万庄)

新华书店经销

北京海通创为图文设计有限公司制版

北京中科印刷有限公司印刷

*

开本: 889 × 1194 毫米 1/20 印张: 4 $\frac{1}{2}$ 字数: 150 千字

2006 年 2 月第一版 2006 年 2 月第一次印刷

定价: 26.00 元

ISBN 7-112-08014-2

(13967)

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本社网址: <http://www.cabp.com.cn>

网上书店: <http://www.china-building.com.cn>

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Mies's architecture in America can be viewed as either an architectural solution or a technological solution, although both priorities co-exist in many of his buildings. Mies's architectural solution, found mostly in his earlier and smaller projects, may be defined as architecture that is complete in itself and visually integrated as a whole.

Mies's technological solution, found mostly in his later and larger projects, is illustrated in the case of buildings too large to comprehend as an integrated whole and/or where the form and elevations of buildings are dictated by technological priorities rather than aesthetic considerations.

Architectural Solution

In Mies's own words: "Advancing technology provided the builder with new materials and more efficient methods which were often in glaring contrast to our traditional conception of architecture. I believed, nevertheless, that it would be possible to evolve an architecture with these means."¹

The 860-880 Lake Shore Drive Apartments (1948-1951) and the Seagram Building (1954-1958) represent architectural solutions using new means. As structures in which the aesthetic is given priority, they are masterpieces in the traditional sense of architecture. However, these buildings also exhibit the potential inherent in the new means employed in their construction. Like all great art that summarizes the past and pushes beyond it, these masterpieces anticipated a new architecture, a technological solution.

Technological Solution

Post-modernists often criticized Mies for going beyond architecture. But as Mies himself put it:

"We are not at the end, but at the beginning of an epoch; an epoch which will be guided by a new spirit, which will be driven by new forces, new technological, sociological and economic forces, and which will have new tools and new materials. For this reason we will have a new architecture."²

In his work, Mies may indeed have gone beyond architecture, in the sense of the traditional understanding of the discipline. However, it is my belief that his work evolved into a new architecture that expressed our new view of the infinite universe.

Masami Takayama 撰文

密斯在美国的作品有两种倾向(虽然他的大多数作品是两者兼顾的):一类作品的方案保持着纯建筑的立场,另一类则是以技术手段为先。前一倾向多见于他早期设计的小型工程,可以将其定义为在视觉上和谐统一、体系上完整自足的建筑。

密斯以技术手段运用为主的设计方案多见于他后期的大型工程,即当建筑物的规模太大,以至于在视觉上难以形成整体感的时候;或当建筑的形式与立面受技术手段的支配,因而审美上的考虑退居次席的时候。

纯建筑的方案

密斯说过:"不断前进的技术为建造者提供了新的材料和更有效的工作手段。尽管它们通常与传统的建筑观念格格不入,但我相信完全可以从发展中发展出一种新的建筑艺术来。"¹(芝加哥)860-880号湖滨公寓(1948-1951年)以及(纽约)西格拉姆大厦(1954-1958年)就是密斯应用新方法设计的代表作。这两幢建筑在结构上力求美感,是传统意义上的佳作。但同时,它们也展现出了新的建造方式所蕴含的潜力。正如所有那些继承传统但不为其所囿的伟大的艺术一样,这两个杰作预见了一种以新技术手段运用为基础的新的建筑。

技术手段运用的方案

后现代主义者们常常批评密斯在建筑艺术上的离经叛道,但是正如密斯所言:"我们身处的不是一个时代的终结,而是它的开始。这是一个新的精神引领下的时代,一个在技术上、社会学上乃至经济上都拥有全新驱动力的时代。这个时代将会有新的工具和新的材料。因此,我们也将会有新的建筑艺术。"²的确,按照对建筑艺术的那些金科玉律的传统

1 Blaser, W., Mies van der Rohe, Birkhäuser, Basel 1997, p. 8

1 W·布雷泽,《密斯·凡·德·罗》,巴塞尔,博克豪斯出版社,1997年,第8页。

2 AIA Journal, Acceptance speech for the Gold Medal of the American Institute of Architects 1960

2 AIA 杂志,1960年密斯在接受美国建筑师学会金奖时的讲话。

Independent Elements

Mies's departure from traditional architecture begins with the concept of independent elements. In traditional architecture, parts are subordinated to the overall form. This traditional concept is best explained by Eero Saarinen in the design of his TWA building. As Saarinen wrote: "... we realized that having determined on this basic form for the vaulting, we had committed ourselves to a family of forms and must carry the same integral character throughout the entire building. All the curvatures, all the spaces and elements, down to the shapes of signs, information boards, railings and counters, would have to have one constant character. As the passenger walked through the sequence of the building, we wanted him to be in a total environment where each part was the consequence of another and all belonged to the same form-family."³

Mies did not believe that architecture was a play of forms. In his architecture, each component was developed as an independent element. Freed from the constraints imposed by the overall form, each element can take the form most appropriate to its function, and, therefore, it can be reused for the same function in different buildings. The same staircase is used, for example, in an office building in Mexico City, a museum in Berlin and a laboratory in Chicago.

Chicago Federal Center

Mies's idea of a technological solution is most clearly demonstrated by the Chicago Federal Center.

Joseph Fujikawa, Mies's longtime collaborator, recalls that one day while working on an IIT campus building, someone suggested: "Mies, we can build it with concrete, and clad it with steel. It would be much cheaper and still look the same." In reply, Mies pounded on the table thundering: "No! No! No!" For Mies, steel was not an engineering choice but an architectural mandate.

Despite his almost emotional attachment to steel, only 8 out of Mies's 32 high-rise buildings were built with steel, and only 6 of these have a steel skin (two each at the 860-880 Lake Shore Drive Apartments, the Chicago Federal Center and the Toronto Dominion Center). The Chicago Federal Center was indeed a rare opportunity for Mies to build with "his" material.

Open-ended Plan

The Chicago Federal Center is a group of three buildings

理解, 密斯的作品可以说是离经叛道的。但是我相信密斯正是以这样的作品表达了我们对于无限宇宙的新的认知, 并最终将其发展成为了一种全新的建筑艺术。

独立元素

密斯对传统建筑艺术的背离始于独立元素这一概念。在传统的建筑中, 局部总是服从于整体。埃罗·沙里宁 (Eero Saarinen) 设计的 (纽约肯尼迪机场) 环球航空公司候机楼 (TWA大厦) 就是对这个传统观念的完美诠释。沙里宁写道: "我们意识到当穹顶的基本样式被敲定下来后, 我们就要致力于在整个大厦中建立起一系列与之相配套的其他样式来。所有的曲线, 各种空间和元素, 一直到大小标牌、信息公告牌、栏杆扶手和柜台等等都要一以贯之。当游客循序游览大厦时, 我们想让他置身于一个具有整体感的环境中——在这里, 每一部分都因为另一部分而存在, 而所有的这些部分又全都和谐地统一在一种样式体系之下。"¹

密斯并不认为建筑是形式的游戏。在他的建筑中, 每一个部件都被发展成一个独立元素。这些元素不受整体风格所限, 采用最符合自身功能的形式。正因为如此, 它们可以在不同的建筑中为实现相同的功能而被反复使用。举例来说, 一个楼梯既可以出现在墨西哥城的一家办公楼里, 又被用于柏林的一座博物馆中, 同时还可以在芝加哥的某一个实验室见到它。

芝加哥联邦中心大厦

密斯以技术手段运用为基础的建筑理念在芝加哥联邦中心大厦的设计上体现得最为清晰。

根据密斯的长期合作伙伴约瑟夫·藤川 (Joseph Fujikawa) 的回忆, 在做伊利诺伊理工学院一座大楼的工程时, 有一天有人建议说: "密斯, 我们可以先用水泥建楼, 然后再拿钢材外包。这样整座大厦外观不变, 但成本低得多。" 密斯拍着桌子咆哮起来: "不行! 不行! 绝对不行!" 对密斯来说, 使用钢材根本不是工程上的一个可选项, 而是建筑上的必需。

3 Saarinen, Aline B., editor, Eero Saarinen on His Works, Yale University Press, New Haven 1962

1 《埃罗·沙里宁谈他的作品》, (编辑) 阿莱恩·B·沙里宁, 纽黑文: 耶鲁大学出版社, 1962年。

built on two sites in downtown Chicago. It flanks Dearborn Street between Adams Street and Jackson Street.

The 30-story Federal Courthouse building is on the east side of Dearborn Street; the 42-story general purpose office tower and single-story post office are on the west side. The two high-rise buildings are positioned on a 28' grid and perpendicular to each other, such that they define the southeast corner. The post office defines the opposite, northwest corner. Together, these buildings of different sizes form a dynamic urban plaza. Alexander Calder's stabile reinforces the flow of space within the plaza.

According to Architectural Design,⁴ Congress allocated 100,000,000 US dollars for the total project, which was envisaged as split into two equal stages. The program also required that the existing Federal Building on the western site remain open until the courthouse could be relocated to the new building.

The program therefore required that the courthouse building be located on the eastern site. The narrowness of the eastern site dictated the dimensions of the structural grid and the size of the building's ground plan or "footprint." This, in turn, determined the number of floors.

With the form and position of the courthouse building fixed, several alternatives were developed to determine the size and location of the office tower and the post office. In the first scheme, the office space is located on top of the courthouse building, leaving only the post office on the western site. In the second scheme, two identical office towers flank the central post office. In these two schemes buildings are arranged symmetrically along the east-west axis.

In the third scheme, the courthouse building and office tower are identical in size. They are placed perpendicular to each other at the south-east corner. The fourth scheme is similar to the third scheme except that the office tower is much taller than the courthouse and with a smaller footprint.

In the first three schemes the master plan prescribes the location and size of all buildings. Their symmetry or identical sizes aesthetically limits later modification.

While the first three schemes are traditional and complete in themselves, the fourth and ultimately selected scheme is open-ended. With its asymmetrical arrangement and size variation, the fourth scheme allows necessary adjustments at each stage of development. In the end, the actual height of the office tower was reduced from original study model's 45 stories to 42.

Even, Odd and Many

The Federal Center buildings are steel structures using a

密斯对钢材情有独钟，但是在他所设计的32座高层建筑中，只有8座是以钢材建造的，其中拥有钢质外皮的仅6座[860—880号湖滨公寓，芝加哥联邦中心大厦以及多伦多自治领中心大厦(Toronto Dominion Center)，每处各两座]。因此，对密斯来说，芝加哥联邦中心大厦确实是一个不可多得的、以“他”的材料来进行设计的机会。

开放式的平面

芝加哥联邦中心大厦坐落于芝加哥市中心，由3座建筑物共同组成。它的两块地基分别位于迪尔伯恩街的两侧，介于亚当姆斯街和杰克逊大道之间。

30层的联邦法院在迪尔伯恩街的东侧，西侧是42层的办公楼和1层的邮局。两座高层建筑在以28英尺为单位的栅格网上彼此垂直，形成东南角，对面的西北角由邮局界定。3座大小不等的建筑物成围合之势，中间是一个充满活力的城市广场。亚历山大·考尔德(Alexander Calder)的抽象雕塑坐落其间，为广场平添了几许空间的流动感。

依照《建筑设计》¹的记录，美国国会按拟定计划，平均分两阶段为整个项目拨款款项，共达1亿美元。该项目还要求继续开放坐落在西侧的原联邦大厦，直到新的法院大楼建成并移交使用为止。

根据这一要求，法院大楼被放置到了东侧的地基上。

这一侧地基的狭长性决定了柱网的尺度和大厦底层平面，即“脚印”的大小，而这一点又进而决定了楼层数。

法院大楼的形式和位置定下来后，办公楼和邮局的几个备选方案也逐渐发展成型。在第一个方案中，办公空间和法院位于同一座大楼，邮局留在西侧。第二个方案是法院大楼和办公楼大小形式完全相同，分立在邮局两侧。在这两个方案中，所有建筑物都是沿东西轴向对称排列的。

第三个方案中，法院大楼和办公楼还是大小一样，但是彼此垂直于东南角。第四个方案和它基本相同，只是办公楼比法院大楼高出很多，而且占地较小。在前3个方案中，总体规划规定了所有大楼的位置和规模。其中，两座大楼位置对称或者大小完全相同的要求，限制了将来从审美角度对方案进行修改的可能。

4 Architectural Design, vol. 34, January 1964, p. 10

1《建筑设计》，1964年1月，第34卷，第10页。

standard rigid frame construction of 28' bays. Within the standard steel frame, each bay is structurally independent. Adding (or subtracting) a bay would not change the structural character, but it would have a decisive effect on the aesthetic character of the building. The number of bays becomes an architectural choice rather than an engineering demand. Odd numbers of bays, such as 1, 3 or 5, encourage symmetry and create a cohesive whole. Even numbers of bays, such as 2, 4 or 6, tend to visually split a building in half and make its elevation indeterminate. Whether they are odd or even, numbers larger than 9, for instance, are generally perceived as "many". They are recognized as mass.

In Mies's architectural solutions, odd numbers of bays were used, such as 1×3 (Crown Hall) and 3×5 (860-880, Seagram). In his technological solutions, both odd and even numbers of bays were used, whichever was practical, such as 3×6 (Westmount), 3×8 (Toronto Dominion) and 4×8 (Lakeview). On the other hand, a number of his designs feature "many" numbers of bays, such as 4×9 (One Illinois Center), 3×10 (900, Lafayette), and 3×20 (Colonnade Park).

The 28' structural bay at the Chicago Federal Center is smaller than the 30' span typical for Chicago office buildings around that time. Its dimension was dictated by the 125' stretch along Adams Street. Once the 28' bay was fixed, it was repeated as many times as the program required or the site permitted. As a result, the courthouse building became 4×13 and the office tower 4×8 - numbers that are open-ended in both directions.

Uniform Skin

The open-ended character of the Chicago Federal Center's structures was further reinforced by the uniform treatment of their exteriors. In high-rise construction, the temperature control of perimeter columns is a critical issue due to the thermal expansion or contraction of steel. In the 1,127' John Hancock Center, for example, its steel would contract 8 inches at an outside temperature of minus 25°F if no thermal protection were provided.

The most effective way of minimizing thermal contraction is to enclose the entire structure in a continuous skin. By placing the skin in front of the structure, the former is separated from the latter and each becomes an independent component. The skin, therefore, is no longer subordinate to the structure. In almost all of Mies's tall buildings, architectural priority gave way to this technological priority. Now, the structure disappears behind the skin, and the skin becomes the prime visual component.

前3个方案传统而自成一体, 第四个即最终选定的方案则是开放式的。它的不对称布局, 以及大楼规模上的灵活变化, 使得建筑师可以在任何一个发展阶段对设计方案作出必要的调整。最后, 办公大楼建成的实际高度就从研究模型的45层降到了42层。

奇数, 偶数和多数

联邦中心大厦的钢结构采用了以28英尺开间为模数的标准固定框架。在这个标准框架中, 每一个开间在结构上都彼此独立。增加(或减少)一个开间不会改变大厦的结构特性, 但是会对它的外观美感产生决定性的影响。因此, 开间数目的多少就成了一个建筑设计上的选择, 而不必考虑工程上的需要。

采用1个、3个或者5个这样奇数数目的开间, 有助于带来对称感以及整体的和谐性。

2、4、6等偶数数目的开间则倾向于在视觉上把建筑一分为二, 并且使其立面具有不确定性。无论奇数、偶数, 只要开间数大于9, 那么, 一般而言, 就都属于“多数”的范畴, 我们可称之为大量。

密斯从纯建筑设计立场出发, 所做的方案均采用了奇数的开间, 比如 1×3 (克朗楼) 和 3×5 (860-880号湖滨公寓, 西格拉姆大厦)。在以技术手段运用为主的方案中, 密斯根据实际需要, 对奇数和偶数两种开间数目都使用过, 比如 3×6 [韦斯特蒙 (Westmount)], 3×8 (多伦多自治领中心大厦) 以及 4×8 [湖景大厦 (Lakeview)]。此外, 他也有一些设计采用了“多数”数目的开间。比如 4×9 [伊利诺伊中心1号 (One Illinois Center)], 3×10 (900, 拉法亚特) 和 3×20 [柱廊公园 (Clonnade Park)]。

与同时期芝加哥办公楼设计中所广泛采用的30英尺的开间相比, 芝加哥联邦中心大厦的28英尺开间在跨度上要小一些。该尺度是由亚当斯街在这一段上的长度(125英尺)决定的。开间尺度确定后, 只需根据工程需要或占地允许范围, 将其不断地重复下去即可。最终, 法院大楼变成了 4×13 , 而办公大楼则是 4×8 ——在两个方向上开间的数目都是可以自由调整的。

However, Mies does not design a special skin for each building. He does not use the whole façade as his canvas to express his artistic ego. Instead, he develops one basic unit of skin and repeats it wherever the conditions are the same.

The skin of Mies's buildings, therefore, expresses nothing but the skin itself. It is comparable with the Japanese "shoji" screen that has been used for centuries in almost all traditional houses. The basic shoji unit is made of natural material - wood and paper. Repeated use of the shoji eventually made it symbolic of Japanese architecture.

Mies's basic unit is made from industrial materials - metal and glass. In the case of Federal Center, each extruded aluminum frame is supported by vertical mullions of standard 8" wide-flange steel spaced 4'8" on center. This basic unit was repeated more than 10,000 times, resulting in a uniform skin. The Federal Center has one of the most beautiful skin details of any building. Its beauty lies in the logic of its construction.

"Everything worked"

Architect Karel Yarks, assistant commissioner for design and construction at GSA (General Services Administration), said of his experience working with Mies on the courthouse: "It was an exciting experience. The Mies philosophy - that construction is design, is in fact everything - became clear as the intricate parts began to fit together with ease. Everything worked; there was no head scratching. This clarity, plus CPM scheduling, enabled us to make beneficial occupancy six months ahead of the original completion date, thereby saving the government 400,000 dollars in rent."⁵

Architecture of Multiplication

The Chicago Federal Center is a testimony to Mies's philosophy of architecture as based on construction. In the architect's own words: "Construction is the truest guardian of the spirit of the times because it is objective and is not affected by personal individualism or fantasy."⁶

He believed architecture is the social art of construction as seen in the case of Gothic cathedrals. However, while Gothic architecture is said to be an architecture of division, Mies's technological solution is more accurately described as an architecture of multiplication.

The Chicago Federal Center was created by multiplying the basic unit of the structural frame and the basic unit of the skin. It has no visual limit. It is an aesthetic materialization of

统一的表皮

芝加哥联邦中心大厦在表皮风格上的统一化处理,进一步加强了它开放式的结构特点。在建造高层建筑的过程中,由于钢材的热胀冷缩,外围柱的温控问题至关重要。以1127英尺(约343.50m——译者注)高的约翰·汉考克中心为例,在没有提供保温措施的情况下,它的钢材会在室外温度达到华氏25°F(约为31.67°C——译者注)的时候收缩8英寸。

减小热胀冷缩最有效的方法,是将整个结构都包裹在一个连续不断的表皮下面。通过将表皮置于结构之外而把它从后者中分离出来,使两者彼此独立。这样一来,外皮就不再受制于结构。

几乎在密斯设计的所有高层建筑中,建筑艺术总是像这样,让位于技术的运用。

既然结构消失在表皮后面,表皮就成了首要的视觉成分。

尽管如此,密斯却并没有专门为每一座大楼设计表皮。他不肯把建筑物的整个立面作为表现一己艺术野心的画布。相反,他开发出了一种表皮的基本元素,而且只要在条件相同的情况下,就重复使用这一元素。

密斯设计的建筑物表皮除了自身之外,什么也没有试图去表现。在这一点上,它与日本的障子(Shoji)相似。数百年来,障子一直被用在几乎所有的传统房屋中,它的基本元素是由木材和纸张等天然材料构成的。不断重复地使用障子,最终使其成为了日本建筑的象征。

密斯惯用的基本元素是由金属和玻璃等工业材料制成的。在联邦中心大厦的设计中,每个经压延处理的铝制框架被固定在标准的8英寸宽钢制凸缘直根上。直根的间距为4英尺8英寸,这一基本元素被重复了超过10000次,形成了统一的表皮。联邦中心大厦是世界上拥有着最美丽的表皮细部的大厦之一,它的美丽存在于构成表皮的逻辑中。

"一切运转顺利"

总务管理局(GSA)负责设计和施工的副专员,建筑师

the change in our perspective from the closed world to the infinite universe.

Toward Space

If Mies's uniform skin is a physical expression of infinity, then the ground floor can be viewed as a spatial expression of the same concept. In general, the ground floor is left open and transparent with no function other than as an entrance space. It is recessed from the perimeter columns. The recess lifts the tower 26' above the ground and creates an impression of flowing space. The 27'-high post office is also transparent and enclosed by full-height glass. Despite the much larger scale of the new Federal Center, Mies's treatment of the ground floor gives it a feeling of space - space flowing in, out, around and beyond.

Universal Space

The old Federal Building was an imposing stone building with a neo-classical façade. With its gold dome, it displayed government authority. By contrast, Mies's Federal Center buildings are simple, not unlike other ordinary office buildings. No attempt was made to signify the courthouse function on the exterior; the traditional character of the courthouse is confined to the interior, with its 21 courtrooms. They are formal, symmetrical and finished with rich materials.

Mies separated structure from interior - an important contribution to contemporary architecture, in which structure is becoming larger with a longer life span, and interior functions are changing more quickly with what is consequently a shorter life span.

Mies's architecture amounts to structure created for universal space that accommodates changing functions. In this sense, Mies's technological solution is not form but universal space.

"Flamingo"

In 1974, more than 5 years after Mies died, Calder's Flamingo stabile was placed in the Federal Center plaza. It is located where Mies originally placed a planter.

It was the GSA committee, not Mies, who selected Calder, who was known for working independently and ignoring context. Despite their independence, Mies's architecture and Calder's art beautifully complement each other.

卡雷尔·亚克斯 (Karel Yarks) 在谈到他和密斯在法院大楼工程的合作经验时说道：“那是一次激动人心的体验。当各个复杂的构件开始轻而易举地彼此吻合的时候，密斯所说的——建造即设计，事实上它是一切——的哲学，一下子就变得不言自明了。一切都运转得如此顺利，根本没有什么可挠头的。清晰的理念加上专业化的施工日程安排，我们比预定竣工日期提前了6个月进驻大厦，给政府节省了40万美元的租金。”¹

增殖的建筑

芝加哥联邦中心大厦是密斯“建筑艺术基于建造”这一哲学的证明。用建筑师自己的话说就是：

“建造是时代精神最忠诚的捍卫者，因为它客观，不受个人主义或幻想所左右。”²

同哥特式教堂的设计所包含的理念一样，密斯认为，建筑设计应该是面向大众的建造艺术。只不过，哥特式建筑常被认为是分殖的建筑，而密斯的从技术手段运用出发的建筑理念则可以被更准确地描述为增殖的建筑。

芝加哥联邦中心大厦就是由框架式结构和外皮所各自具有的基本单位增殖而成的。它可以无穷尽地延伸，是我们的视野从封闭的世界转向无限宇宙这一变化的审美体现。

面向空间

如果说密斯所创造的统一表皮是对“无限”这一概念的物质化表达，那么联邦中心大厦的底层设计则可以看作是对同一概念的空间表达。总体来说，底层除了作为大厦的入口之外不作他用，具有很好的开放性和透光性。底层空间从外围柱处退进，把整个大厦举到距离地面26英尺高的空中，创造出一种流动的空间效果。27英尺高的邮局采用了四面落地玻璃幕墙，所以也是通透的。尽管这座新的联邦中心大厦的规模比原来要庞大了许多，但是密斯对底层的处理赋予了它一种空间感——一种空间在大厦中自由进出、在四面八方流动着的感觉。

5 Architectural Record, vol. 137, March 1965, p. 125

1 《建筑实录》. 1965年3月，第137卷，第125页。

6 Architectural Record, vol. 134, No. 4, October 1963, p. 149

2 《建筑实录》. 1963年10月，第134卷，第149页。

通用空间

原来的联邦大厦是一座宏伟的、具有新古典主义风格立面的石砌建筑。它的金色穹顶象征着政府的权威。与之相反，密斯设计的联邦中心大厦风格简练，和其他普通的办公大楼并无二致。大厦的外部设计没有任何强调法院职能的意图；传统的法院特征是通过大厦内部21个设计对称规范、装饰华贵堂皇的法庭体现出来的。

现代建筑的结构规模日益庞大，使用寿命越来越长，其内部功能则常常在相对较短的时间内频繁变换。因此，密斯把建筑物的结构与其内部功能分开，这一做法是对现代建筑的一个重要贡献。

密斯的建筑可总结为建构一个能够包容多变的内部功能的通用空间。从这个意义上讲，密斯从技术手段运用出发的方案不是设计某种样式，而是如何创造出一个通用的空间。

“火烈鸟”

1974年，密斯辞世5年多后，在联邦中心大厦广场密斯原来摆放小花坛的地方，安置了考尔德的火烈鸟抽象雕塑。

考尔德不是由密斯而是总务管理局委员会选择的，他以独立创作和作品忽视周遭环境而闻名。尽管如此，密斯的建筑与雕塑家的作品却彼此和谐共处，交相辉映。

Masami Takayama was born in 1933 in Tokyo. He studied architecture at Waseda University and at Illinois Institute of Technology under Mies van der Rohe. In 1975, he received his Ph. D. in Architecture from IIT. He worked at Skidmore, Owings and Merrill, Chicago, as a Senior Architect, and taught at IIT and Harvard University. In 1993, Masami Takayama founded Chicago Institute for The Study of Architecture & Technology where he currently is Chairman.

Masami Takayama 于1933年出生于东京，曾在早稻田大学学习建筑。后来又伊利诺伊理工学院继续深造，师从密斯·凡·德·罗。1975年，他获得了伊利诺伊理工学院建筑学博士学位。他曾在芝加哥SOM公司担任高级建筑师，并先后在伊利诺伊理工学院和哈佛大学任教。1993年，Masami Takayama 创立了芝加哥建筑与科技研究学会，现任该学会会长。

